Device Errors

Safeguarding cardiac guide wires

FOLLOW THESE TIPS TO AVOID BREAKAGE.

BY CATHLEEN MICHALOSKI, BSN, MPH
Nurse-Epidemiologist • Center for Devices and Radiological Health • Food and Drug Administration • Rockville, Md.

DURING A PERCUTANEOUS TRANSLUMINAL coronary angioplasty (PTCA) procedure, a guide wire broke inside a patient's coronary artery. The patient needed surgery to remove the guide wire fragment.

What went wrong?

Cardiac guide wires are often used to help place balloon dilatation catheters during intravascular interventional procedures, including PTCA. The most common adverse event associated with guide wires that's reported to the FDA is breakage of the tip or wire, most commonly because of handling or use error. Other potential adverse reactions include air embolism, perforation, and infarction.

What precautions can you take?

Although a physician handles the guide wire during the procedure, you should follow these general guidelines to minimize the risk of breakage:

- Carefully read and follow the product's labeling instructions and precautions.
- Before the procedure, remove the wire slowly and carefully from the carrier tube to avoid damaging the distal tip. Check for any tiny surface bends or scrapes.
- Make sure that the wire size is compatible with the balloon dilatation catheter.
- Don't try to straighten a bent guide wire.
- To avoid shearing, wires with special coating shouldn't be withdrawn through a metal needle cannula.
- Never reuse or resterilize the device.

Although you need to support the adverse event–reporting policy of your health carefacility, you may voluntarily report a medical device that doesn't perform as intended by calling MedWatch at 1-800-FDA-1088 (fax: 1-800-FDA-0178). The opinions and statements contained in this report are those of the author and may not reflect the views of the Department of Health and Human Services. Device Errors is coordinated by Chris Parmentier, RN.